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TWENTIETH
ANNUAL REPORT

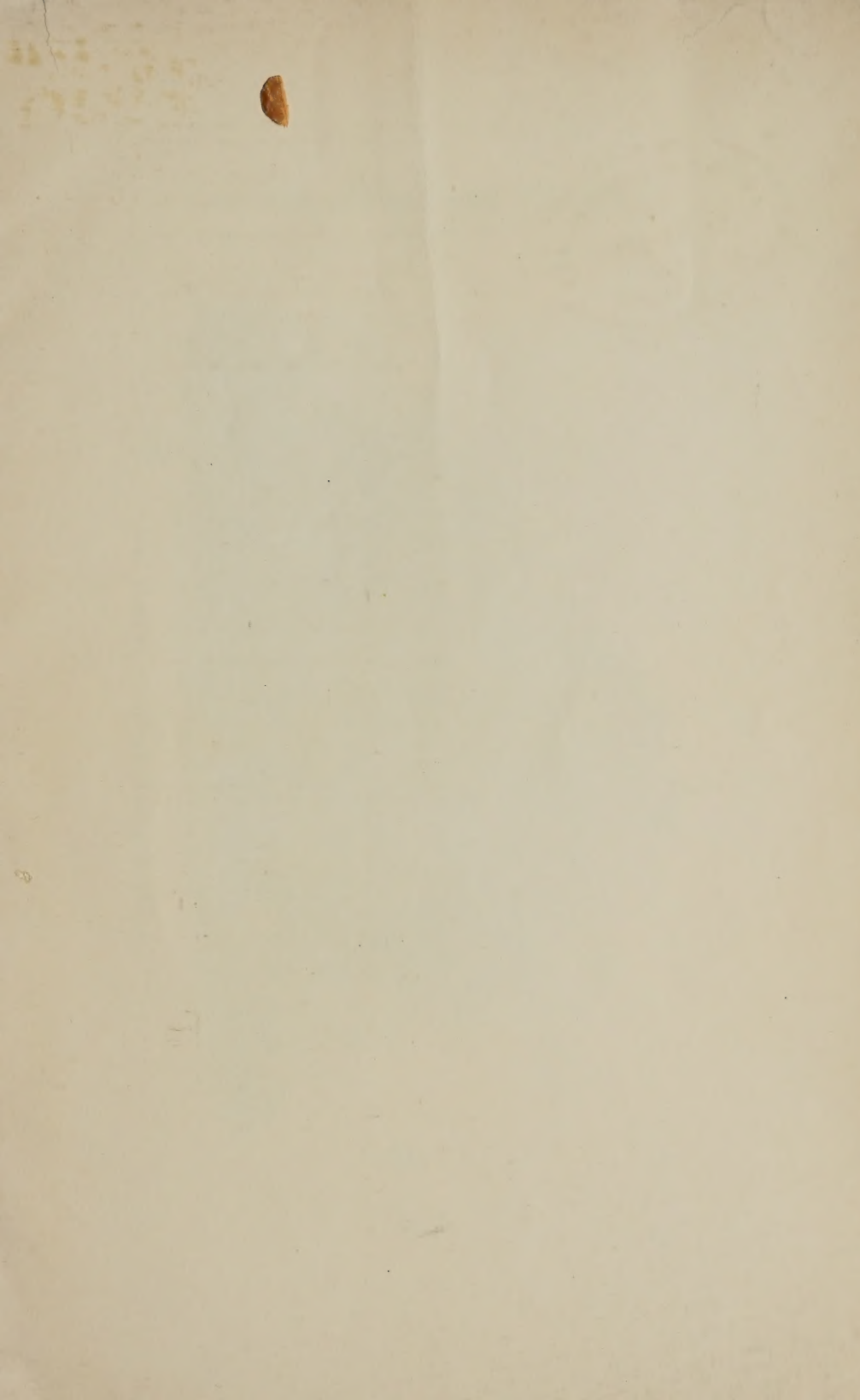
BOARD
or
HEALTH



CITY of DETROIT

For the Fiscal Year
Ending June 30th
1901







BOARD OF HEALTH BUILDING, DETROIT, MICH.

Twentieth Annual Report

OF THE

BOARD OF HEALTH

OF THE

CITY OF DETROIT,

11

For the Fiscal Year Ending June 30th, 1901.



THOS. SMITH PRESS, DETROIT,
1901.

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MEMBERS OF THE BOARD.

J. B. KENNEDY, M. D., President.

Term expires February 28, 1902.

JOHN N. BAGLEY, Vice-President.

Term expires February 28, 1904.

JOHN L. IRWIN, M. D.

Term expires February 28, 1903.

SAMUEL T. DOUGLAS,

Term expires February 28, 1905.

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JOHN F. MCKINLAY,	Secretary
A. B. RAYMOND, C. E.,	Sanitary Engineer
W. I. TIBBALS, Ph. C.,	Chemist and Bacteriologist
CHARLES S. VALENTINE,	Registrar
M. B. FAUGHNER,	Food and Milk Inspector
E. J. KENDALL, M. D.,	} Medical Inspectors and Disinfectors
J. V. BECELAERE, M. D.,	
ALEXANDER KITTLE,	} Meat Inspectors
PETER E. HIRTH,	
B. F. SCHELLBERG,	} Quarantine Inspectors
HERMAN BOLDT,	
R. P. VANDY,	Funeral Inspector
W. G. WILLIAMSON,	} Plumbing Inspectors
W. C. WILSON,	
WILLIAM MOUAT,	
CASPAR GNAU,	Garbage Inspector
ROY A. LITTLEFIELD,	Sanitary Engineer's Clerk
HENRY T. RENSHAW,	Permit Clerk
GEORGE EVANS,	Night Clerk
JOHN H. WALSH,	} Hospital Guards
JOHN SHEA,	
FRANK McEVOY,	
J. B. MYERS,	
MRS. JENNIE BROWN,	Janitress

HONORARY BOARD OF EXAMINERS OF PLUMBERS.

SAMUEL DICKSON.

JAMES H. CRUMLEY.

RICHARD WALSH

REPORT OF THE HEALTH OFFICER.

To the Honorable The Board of Health.

GENTLEMEN:—

At the close of my year as Health Officer of the City of Detroit, and after a glance at the work accomplished during that time, I feel that we have reason to congratulate ourselves upon the amount of work completed, and the efficient manner in which it has been carried forward.

One year is a short time in which to carry to completion important work upon public health lines, as years of work and study are necessary to ascertain the best methods of preserving the public health and successfully applying them.

The sanitary condition of the city has never been better than at the present time; all nuisances complained of having received prompt attention and investigation and the necessary steps taken to remove the causes thereof.

The number of deaths resulting from the various contagious diseases (Diphtheria, Scarlet Fever and Smallpox), reported at this office have been very few; for example, from an outbreak of smallpox during which one hundred and ten cases were reported to, and cared for from, this office, one hundred and nine recovered. The death occurring from a case reported within a few hours of the death of the patient, and when past relief from medical science. This certainly is a remarkable record.

To-day, Gentlemen, after having over one thousand cases

of contagious disease during the past year, my term as Health Officer closes, with no diphtheria cases, only seventeen scarlet fever cases, and one case of smallpox, which is nearly recovered.

The Health Officer has from time to time in his reports recommended many things for the betterment of the health and sanitary conditions of the city, such as a well equipped city hospital for the care of the various contagious diseases, a general vaccination, public bath houses, inspection of schools and many others which could not be accomplished for lack of money; the Board of Health Fund being much too small for these purposes and other necessary work.

The report of the work of this Department in detail will be found in the various reports following.

In a word the success of the year's work has been made possible by the assistance and cordial support of your honorable body, the hearty co-operation of the entire medical profession and the staff of the Board of Health.

I have the honor to remain,

Yours very truly,

W. R. BAKER, M. D.

Health Officer.

Detroit, Michigan, July 1st, 1901.

REPORT OF THE REGISTRAR OF VITAL STATISTICS.

GUY L. KIEFER, M. D., Health Officer.

DEAR SIR—I respectfully submit the following as the report for the contagious disease and vital statistics departments for the year ending June 30th, 1901.

SUMMARY OF MORTALITY.

AGE	July, 1900	August	September	October	November	December	January, 1901	February	March	April	May	June	Total
Under 1 year.....	180	128	96	75	116	52	165	88	49	50	45	134	1,093
1 to 4 years.....	29	45	43	32	44	49	29	34	58	44	30	24	461
5 to 9 years.....	10	6	5	9	5	13	18	17	14	12	11	9	129
10 to 19 years.....	23	23	19	13	20	23	21	21	14	22	18	14	231
20 to 29 years.....	39	26	26	36	26	28	22	40	38	37	33	20	371
30 to 39 years.....	37	44	20	28	26	27	26	41	43	37	39	30	398
40 to 49 years.....	31	27	20	26	19	34	32	22	33	27	39	26	336
50 to 59 years.....	26	41	33	32	33	32	28	29	41	54	30	28	407
60 to 69 years.....	40	29	32	37	31	40	37	36	42	54	30	28	451
70 to 79 years.....	31	30	17	27	36	34	38	35	62	36	39	23	424
80 years and over.....	15	11	20	20	11	20	16	14	19	27	23	16	212
Still born.....	35	29	27	24	30	33	25	37	34	28	31	32	365
Total.....	496	439	358	357	343	385	459	414	447	428	368	384	4,878

SUMMARY OF MORTALITY—Continued.

NATIVITIES.

PLACE OF BIRTH	July, 1900	August	September	October	November	December	January, 1901	February	March	April	May	June	Total
Detroit.....	255	206	172	147	144	165	218	140	202	182	160	175	2,166
Michigan.....	52	63	21	38	37	40	43	58	30	35	28	38	483
Other States..	35	51	47	50	52	45	55	44	45	54	48	32	558
Austria	3	1	.....	1	2	1	.....	.....	2	.....	.....	1	11
Australia.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Bohemia	3	.....	1	1	3	.....	4	.....	2	1	2	3	20
Belgium	3	1	1	.....	.....	3	2	.....	.....	1	.....	.....	11
Bavaria.....	2	1	1	.....	.....	.....	1	.....	.....	.....	.....	.....	5
Canada.....	33	19	24	21	22	30	28	34	32	28	30	25	326
Denmark .....	.....	2	.....	1	.....	.....	.....	.....	.....	1	.....	.....	4
England.....	13	14	13	7	8	14	17	15	9	10	8	8	136
France.....	2	.....	1	.....	.....	4	2	.....	2	3	1	2	17
Germany.....	46	47	50	56	46	50	55	65	74	69	47	59	664
Greece .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Holland .....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	1	3
Hungary .....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	2
Ireland.....	32	26	18	17	20	17	21	24	30	25	23	18	271
Italy.....	2	1	.....	.....	.....	.....	1	1	.....	1	1	1	8
Poland.....	.....	.....	.....	2	.....	5	1	4	4	4	3	2	25
Prussia .....	.....	.....	.....	.....	.....	.....	.....	1	2	1	2	.....	6
Russia.....	1	1	1	1	2	3	2	2	2	2	.....	3	20
Scotland	3	2	4	4	3	3	4	2	8	8	8	7	56
Spain	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
Sweden.....	.....	1	.....	1	.....	.....	1	.....	2	.....	1	.....	6
Switzerland ..	1	.....	.....	.....	.....	2	.....	2	1	1	.....	2	9
Not Stated....	8	2	3	9	4	2	4	6	12	1	6	6	63
Total.....	496	439	358	357	343	385	459	414	447	428	368	384	4,878

REPORT OF THE BOARD OF HEALTH
SUMMARY OF MORTALITY—Continued.

CAUSES OF DEATH.

CAUSE OF DEATH	July, 1900	August	September	October	November	December	January, 1901	February	March	April	May	June	Total
Abscess.....		1							1		2		4
" pelvis.....						2							2
" liver.....			1		1	1	1			1	1		5
" brain.....					1								1
" lung.....							1						1
" uterus.....			1										1
" abdominal.....				1						1			2
" chest.....							1						1
Accidental, killed by cars.....	3	5	3	5		4	2	2	2	6	3	5	40
" drowning.....	4	3	8		1	1	1			3		3	25
" poison.....	3			2			3	2		2		1	13
" gun shot.....		3		1	1	1	1	1		1	1	1	11
" fall.....	1	2		1	3	3	3		1	1		2	17
" burned.....	8	3		1	2	1		1	1		1	1	19
" scalding.....		1		1	1		1				2		6
" electric shock.....			1			1			1			1	4
" bicycle.....				1									1
" crushed.....	1		3		1			2		1		1	9
" asphyxia.....	1							1					2
" frozen.....						1		2					3
Alcoholism.....	3	3			1	1	3	1	2	2		2	18
Anaemia.....	2	2	3			2			1		2	1	13
" pernicious.....	1	2	1	1			1	1	1	2		2	12
Appendicitis.....	1	5	3	1	4	6	3	3	3	2	3	1	35
Apoplexy.....	13	15	3	10	10	11	15	11	13	13	11	12	137
Asthma.....	3	2	2		3	6			4		5	2	27
Anasarca.....						1			1				2
Atrophy, liver.....			1				1				1		3
" muscular.....			1					1					2
Angina Pectoris.....		1	1	2		1	3	2		1	4	1	16

SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH	July, 1900	August	September	October	November	December	January, 1901	February	March	April	May	June	Total
Asphyxia.....	2	...	2	1	1	...	1	1	2	2	3	1	16
Atelectasis.....	1	1	1	...	1	..	1	1	1	...	1	...	8
Aneurism.....	...	1	...	...	...	1	...	...	...	...	...	...	2
Atheroma.....	...	...	1	...	...	...	...	...	...	...	...	...	1
Aortic Regurgitation.....	1	...	...	...	...	...	...	...	...	...	...	...	1
Albuminuria.....	1	...	...	...	1	1	...	...	...	1	...	...	4
Arterio Sclerosis.....	...	1	1	...	...	...	1	...	1	...	...	1	5
Aneurism Aorta.....	...	...	...	1	...	...	...	1	...	1	...	...	3
Aortic Stenosis.....	1	...	...	...	1	...	...	...	...	...	...	...	2
Abortion.....	...	...	...	...	1	...	...	1	...	1	...	...	3
Acetonuria.....	...	...	...	...	...	...	...	...	...	...	1	...	1
Abnormal Labor.....	...	...	1	...	...	...	1	...	...	...	...	...	2
Arteries, calcereous degeneration.....	...	...	...	...	...	1	...	...	...	...	...	...	1
Adenitis Cervical.....	...	...	...	1	...	...	...	...	...	...	...	...	1
Biliary Calculi.....	...	1	...	...	...	...	...	...	...	...	...	...	1
Bright's Disease.....	4	2	2	3	...	1	3	2	2	7	3	3	34
Bronchitis.....	9	4	7	8	7	8	10	5	8	16	8	1	92
" chronic.....	3	1	1	3	5	2	4	...	2	8	1	1	31
" capillary.....	1	...	11	3	2	6	9	10	13	6	9	1	71
Breech Presentation.....	1	1	...	...	...	2	2	...	...	2	1	...	9
Brain, organic disease.....	...	...	...	...	1	...	...	...	...	...	...	...	1
" congestion of.....	1	2	4	1	1	3	4	1	2	1	2	1	23
" softening of.....	1	1	...	...	...	2	1	1	1	...	...	1	8
Carcinoma.....	2	3	2	3	1	1	2	2	...	1	3	...	20
" stomach.....	7	6	6	4	3	6	3	5	2	5	8	2	57
" intestines.....	..	1	1	...	1	...	1	1	...	3	2	1	11
" face.....	...	...	...	1	...	...	...	...	...	...	...	...	1
" breast.....	2	1	1	1	...	2	2	...	1	1	2	...	13
" uterus.....	3	2	1	1	...	6	4	3	3	...	2	3	28
" penis.....	...	...	...	...	1	...	...	...	...	...	...	...	1
" tongue.....	...	...	...	1	...	...	...	...	...	...	2	...	3
" liver.....	1	...	1	...	...	2	1	...	3	3	1	1	13

SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH	July, 1900	August	September	October	November	December	January, 1901	February	March	April	May	June	Total
Carcinoma, rectum.....	...	2	...	1	3	...	1	1	1	...	...	...	9
“ abdomen.....	1	...	...	...	...	1	1	...	...	...	1	...	4
“ oesophagus.....	...	...	...	...	...	...	...	...	...	1	...	...	1
“ neck.....	1	...	...	...	2	...	...	1	2	...	1	...	7
“ vagina.....	...	...	...	1	...	...	...	...	...	...	...	...	1
“ groin.....	...	...	1	...	...	...	1	...	...	...	...	...	2
“ pancreas.....	...	...	...	...	...	...	...	1	...	2	...	...	3
Cholera Infantum.....	70	37	27	4	3	...	1	3	2	1	...	10	158
“ Morbus.....	4	...	1	...	...	...	...	...	...	...	...	...	5
Cirrhosis of Liver.....	2	5	3	1	3	2	1	4	7	3	...	3	34
Croup.....	...	2	...	1	...	1	1	...	...	2	1	...	8
“ spasmodic.....	...	...	1	...	...	...	...	1	...	...	...	...	2
Colitis Ileo.....	...	1	3	1	2	1	...	1	2	...	...	...	11
Carbuncle.....	...	...	1	...	...	...	1	...	...	1	...	...	3
Cystitis.....	...	1	1	1	2	...	5	2	...	2	...	2	16
Convulsions.....	3	10	11	13	9	13	10	11	15	24	24	15	158
Catarrh.....	2	...	2	...	1	2	3	4	2	1	2	3	22
Cyanosis.....	1	1	1	1	...	...	2	...	1	1	3	...	11
Chorea, chronic.....	...	...	...	...	1	...	...	...	...	1	...	...	2
Cord, knot in.....	...	...	1	...	...	...	...	...	...	...	...	...	1
“ strangulation of.....	...	...	...	...	1	...	...	...	...	1	...	...	2
Chlorosis.....	...	...	...	...	...	1	...	...	...	...	...	...	1
Debility, general.....	...	2	1	...	2	2	...	...	1	2	...	1	11
“ senile.....	14	16	13	23	22	17	17	16	15	16	18	12	199
Diphtheria.....	1	3	5	10	3	11	7	5	3	4	...	...	52
Dysentery.....	12	9	5	1	2	3	1	3	3	...	5	6	42
Diabetes.....	2	3	2	1	2	4	...	1	...	2	3	1	21
Dementia.....	...	2	4	2	4	1	1	...	3	3	2	2	24
Dropsy.....	3	3	2	2	3	3	...	1	1	3	1	3	25
Dyspepsia.....	2	...	...	4	1	3	2	2	1	1	2	1	19
Dentition.....	...	1	...	...	1	...	...	...	...	1	1	...	4

SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH	July, 1900	August	September	October	November	December	January, 1901	February	March	April	May	June	Total
Entero Colitis.....	8	11	11	1	2	2	...	1	1	1	2	...	40
Enteritis.....	11	5	6	4	7	5	1	1	2	4	7	14	67
Endocarditis.....	...	2	4	...	3	2	4	2	5	3	2	2	29
Erysipelas.....	...	...	1	...	2	1	3	2	3	7	3	...	22
Epilepsy.....	1	1	1	2	5	1	...	3	1	2	1	2	20
Emphysema.....	1	...	2	1	1	...	...	1	2	...	2	3	13
Epithelioma..	...	...	...	...	...	...	1	...	...	...	...	...	1
Exhaustion, during labor.....	...	1	...	...	...	...	...	...	...	...	1	...	2
Fracture, femur.....	...	...	1	...	...	...	...	1	...	2	...	1	5
“ skull.....	...	2	1	2	1	2	3	1	1	...	2	1	16
“ hips.....	1	...	...	...	...	...	...	...	...	1	...	...	2
“ leg.....	...	...	1	...	...	...	...	1	...	...	...	...	2
Gastro Enteritis.....	1	...	2	7	...	2	3	1	1	6	1	5	29
Gangrene.....	1	...	...	...	1	...	1	1	...	...	...	...	4
“ lungs.....	...	1	...	...	...	...	...	...	...	...	...	...	1
“ intestines.....	...	...	...	...	...	...	...	...	...	...	...	1	1
Gastritis.....	2	3	5	7	2	5	1	...	3	9	5	4	46
“ acute.....	1	...	...	1	...	...	...	...	1	...	...	...	3
Gall Stones.....	...	1	...	...	...	1	...	...	...	...	...	...	2
Goitre, exophthalmic.....	...	1	1	...	...	1	...	...	1	...	1	...	5
Glottis, oedema of.....	...	...	...	1	...	...	...	...	...	...	...	...	1
Hodgkins Disease.....	...	...	...	...	...	1	...	...	...	...	...	...	1
Heart Disease.....	15	7	9	11	13	14	11	9	14	13	11	4	131
“ fatty degeneration of.....	6	2	1	1	2	...	3	1	...	1	2	2	21
“ valvular disease of.....	7	3	5	3	3	2	9	3	8	8	8	4	63
“ dilatation of.....	3	1	...	1	3	...	4	1	1	1	...	1	16
“ congenital malformation of.....	...	...	1	...	...	...	...	...	...	1	...	...	2
Hæmorrhage.....	...	2	...	1	...	...	2	...	...	...	...	...	5
“ bowels.....	1	...	...	...	1	...	...	...	...	1	...	...	3
“ lungs.....	...	3	1	1	...	1	...	2	...	2	1	...	11
“ uterine.....	2	...	...	1	1	1	...	...	1	...	1	...	7

REPORT OF THE BOARD OF HEALTH
SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH	July, 1900	August	September	October	November	December	January, 1901	February	March	April	May	June	Total
Hæmorrhage, stomach . . . . .	..	..	..	1	..	1	..	..	..	1	..	..	3
Hepatitis.....	1	..	1	..	1	2	3	..	2	1	..	..	11
Hemiplegia	1	1	..	..	2	2	..	..	1	..	..	..	7
Hydrocephalus.....	..	..	2	..	..	1	1	..	..	1	..	1	6
Hysteria.....	..	..	..	1	..	..	..	1	..	..	..	..	2
Hernia.....	..	1	..	2	..	..	2	..	1	1	..	..	7
“ umbilical.....	..	..	..	..	1	..	..	..	..	..	..	..	1
Hip Joint Disease.....	..	..	..	..	..	1	..	..	..	..	..	..	1
Heart Clot, ante mortem.....	..	1	..	..	..	..	..	..	..	2	..	..	3
Hyphremesis.....	..	..	1	..	..	..	1	..	..	..	..	..	2
Influenza . . . . .	..	1	..	..	..	1	3	5	4	2	1	..	17
Intestinal Obstruction.....	..	2	..	3	..	3	..	1	4	6	..	1	20
Insolation . . . . .	..	..	1	..	2	..	..	..	..	..	..	..	3
Intussusception.....	1	..	..	..	..	..	1	..	..	..	..	..	2
Impetigo Contagiosa.....	..	..	1	..	1	..	..	..	..	1	..	..	3
Jaundice.....	..	1	3	1	2	2	..	2	1	..	2	..	14
Kidney, Infraction of.....	..	..	..	..	..	..	1	..	..	..	..	..	1
Laryngitis.....	..	2	..	..	2	..	..	..	1	..	1	..	6
Locomotor Ataxia.....	1	..	..	..	..	1	..	..	1	..	..	..	3
Leucocythaemia . . . . .	..	..	1	..	..	..	..	..	..	..	..	..	1
Leukaemia.....	..	..	..	1	1	1	..	..	1	..	1	..	5
Lymphadenitis.....	..	..	..	..	..	..	1	..	..	..	..	..	1
Liver, Sclerosis of.....	2	1	..	1	..	..	..	2	..	1	..	..	7
Lungs, Congestion of.....	2	..	..	1	1	1	..	3	..	2	2	2	14
Marasmus.....	36	29	21	20	19	15	13	19	16	12	15	52	237
Meningitis.....	13	2	3	5	3	3	4	3	5	3	4	4	50
“ cerebro spinal.....	3	..	3	..	3	1	4	3	11	4	6	2	40
“ tubercular.....	1	3	1	1	..	..	2	6	3	1	2	..	20
“ cerebral.....	2	..	..	3	5	2	3	1	1	..	..	1	18
Malnutrition	2	1	1	2	..	4	..	1	1	..	..	..	12
Measles.....	..	1	..	2	10	12	2	5	5	..	1	2	49

SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH	July, 1900	August	September	October	November	December	January, 1901	February	March	April	May	June	Total
Murder.....		1									1	1	3
Malarial Fever.....	1	1	1	1	1	1	1	...	2	1	1	...	11
Myocarditis.....			1	1	1	...	...	...	...	2	1	1	7
Mitral Insufficiency.....	1	2	3	2	3	4	5	4	6	3	5	4	42
Metritis.....		1	...	1	1	...	...	...	...		1	...	4
Monstrosity.....	1	..	...	1	1	...	2	...	..	1	...	...	6
Nephritis.....	13	8	11	7	8	12	7	8	11	8	5	9	107
" interstitial.....	1	1	...	...	4	...	1	1	2	...	1	...	11
Non closure Foramen' Ovale.....		1	2	...	2	2	2	1	..	...	...	1	11
Neurasthenia.....				1	...	...	...	...		1	...	...	2
Neuritis, acute multiple.....	1	...	...	...	1	1	...	...	...		1	...	4
Myelitis Osteo.....		1	...	...	...	...	...	...	...	...	...	...	1
Ovariectomy.....			1	...	...	...	...	...	...	...	...	...	1
Operation, Shock.....	1	...	2	...	...	1	1	1	...	1	1	...	8
Phthisis Pulmonalis.....	21	13	8	10	12	14	9	15	14	16	20	11	160
Pulmonary Tuberculosis.....	10	12	12	10	16	13	18	14	17	16	24	8	170
Pneumonia.....	12	8	23	16	36	38	36	47	36	67	35	12	364
" broncho.....	1	6	2	5	3	5	15	14	18	13	15	4	101
Peritonitis.....	3	5	5	11	1	5	7	5	10	11	7	6	76
Paralysis.....	3	6	11	4	7	10	9	8	7	11	7	4	87
Pleurisy.....		1	1	...	2	...	...	2	...	3	...	...	9
Puerperal Fever.....	1	2	2	..	2	4	1	5	2	1	1	1	22
Premature Birth.....	7	3	6	3	2	4	5	1	4	7	4	4	49
Pericarditis.....	1	...	...	2	...	...	...	1	...	1	...	...	5
Paresis.....	1	1	1	...	...	...	2	...	4	...	2	3	14
Parturition.....		1	..	2	...	...	1	1	...	3	1	..	9
Pancreas, Disease of.....									1	...	...	...	1
Poliomyelitis, Acute.....										1	..	...	1
Pyo-salpinx.....		1	...	...	1	...	...	...	...	...	...	...	2
Prolapse of Funis.....						1	...	...	...	...	...	...	1

SUMMARY OF MORTALITY—Continued.

[illegible]

SUMMARY OF MORTALITY—Continued.

Table showing computation for the death rate of the city.

MONTHS.	Total.	Still Born	Died Outside of City.	Net
July, 1900.....	496	35	44	417
August	439	29	33	377
September.....	358	27	19	312
October.....	357	24	28	305
November	343	30	15	298
December.....	385	33	35	317
January, 1901	459	25	24	410
February.....	414	37	18	359
March	447	34	23	390
April.....	428	28	22	378
May.....	368	31	28	309
June.....	384	32	14	338
Total.....	4,878	365	303	.....
Still born and died outside.....	668	.....	.....	.....
Total death in city.....	4,210	.....	.....	4,210

Death rate per 1,000 per annum, 13.47, on a basis of an estimated population of 305,000 inhabitants.

BIRTHS REPORTED

For the year ending June 30th, 1901.

MONTH	Male	Female	Total
July, 1900.....	161	129	290
August.....	141	120	261
September.....	127	132	259
October.....	137	122	259
November.....	137	96	233
December.....	122	112	234
January, 1901.....	120	111	231
February.....	131	99	230
March.....	129	111	240
April.....	110	91	201
May.....	97	91	188
June.....	98	94	192
Total.....	1,510	1,308	2,808

CONTAGIOUS DISEASES.

Table showing cases reported by months in comparison with preceding years.

MONTH	DIPHTHERIA				SCARLET FEVER			
	1898	1899	1900	1901	1898	1899	1900	1901
July.....	48	7	34	13	39	20	16	30
August.....	48	11	47	21	39	19	19	27
September.....	71	31	59	43	40	15	40	21
October.....	114	62	95	56	49	20	47	47
November.....	82	71	92	58	66	36	43	46
December.....	66	55	84	43	66	65	29	80
January.....	68	48	68	64	42	37	24	75
February.....	40	27	33	40	25	35	26	55
March.....	38	26	39	21	19	31	24	78
April.....	29	23	37	27	26	24	22	36
May.....	16	25	14	20	29	21	24	47
June.....	32	19	15	10	27	17	28	34
Total..	652	405	617	421	467	340	342	576

CONTAGIOUS DISEASES.

Table showing deaths by months from contagious diseases.

DISEASE	July, 1900	August	September	October	November	December	January, 1901	February	March	April	May	June	Total
Diphtheria.....	1	3	5	10	3	11	7	5	3	4	.....	.....	52
Scarlet Fever	1	....	3	1	1	1	2	1	2	1	2	....	15
Small Pox.....	..	..	..	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Yellow Fever.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1

Table showing present condition of contagious diseases.

DISEASE	Total number of cases June 30th, 1900	DURING THE YEAR			Total number of cases June 30th, 1901	Number of Houses Quarantined June 30th, 1901
		New cases reported	Recoveries reported	Deaths		
Diphtheria.....	3	421	369	52	.....	.....
Scarlet Fever.....	27	576	561	15	24	23
Small Pox. ....	.....	110	107	1	2	1
Yellow Fever.....	.....	1	.....	1	.....	.....

REPORT OF FUNERAL INSPECTOR.

MONTH	FUNERALS ATTENDED.			DISINFECTIONS	
	Diphtheria	Scarlet Fever	Typhoid Fever	Persons	Lots of Clothing
July, 1900.....	1	2	5	63	.....
August.....	3	.....	.....	56	6
September.....	7	2	10	67	7
October.....	10	1	6	130	.....
November.....	3	1	6	62	1
December.....	8	1	4	119	2
January, 1901.....	11	2	1	177	4
February.....	4	1	1	77	2
March.....	4	4	1	100	8
April.....	4	3	2	75	4
May.....	2	3	3	69	3
June.....	3	2	1	83	1
Total.....	60	22	40	1,078	38

Respectfully submitted,

C. S. VALENTINE,

Registrar.

Detroit, June 30th, 1901.

REPORT OF THE SANITARY ENGINEER.

DETROIT, July 1st, 1901.

Guy L. Kiefer, M. D., Health Officer:

DEAR SIR—I herewith submit a review of the work of the sanitary department for the year ending July 1st, giving in tabulated form items of interest.

The inspection and testing of plumbing and drainage work, to secure conformity to the rules and regulations of the Board, has been carried on during the year to the best of our ability with the means at hand to control it. A comparison of the total number of inspections with those of a year ago show a decrease, undoubtedly due to the lack of the department's ability to inflict a penalty for violations, as no penalty is provided in law for such offenses. As this fact became known, work has been concealed by not calling for inspection as required by the rules.

A bill to regulate the registration and licensing of plumbers, for the formulation of rules and regulations to govern their work and providing a penalty for violation of those rules and regulations, was passed by our last Legislature, and becomes operative in all cities in Michigan of over 15,000 inhabitants next fall.

This will remove the greatest obstacle we have had to the proper performance of our work in this line, and will enable us to make a better showing a year hence.

INSPECTIONS OF PLUMBING AND DRAINAGE WORK.

1900	Plumbing of Bldgs.		Sewers	Special	Smoke Tests	Total
	New	Old				
July.....	115	60	182	91	17	465
August.....	75	60	153	133	13	434
September.....	165	41	144	53	10	413
October.....	154	46	201	87	4	492
November.....	125	32	151	61	7	376
December.....	151	19	122	36	4	332
1901						
January.....	103	15	74	29	10	231
February.....	81	9	34	21	3	148
March.....	90	23	109	28	5	255
April.....	162	26	220	23	5	436
May.....	139	30	165	71	4	409
June.....	158	23	141	79	7	408
Total.....						4,399
Last year.....						5,131

SANITARY POLICE.

The following items represent work performed by the Sanitary Squad of Police for the Health Department: It is their duty to watch our streets and alleys, to investigate all nuisance complaints, and see that the City Ordinances and Health Regulations pertaining to sanitary matters are observed.

From the figures given it will be seen that the prevailing contagious disease the past year has been Scarlet Fever, while last year it was Diphtheria. Attention is called to this fact, as its effect upon the cost of supplies issued to families under quarantine is shown when a comparison is made with that of the year previous.

1900	Complaints Investigated	HOUSES PLACARDED FOR				Circulars upon contagious diseases distributed
		Scarlet Fever	Diphtheria	Small Pox	Yellow Fever	
July.	217	15	9	.....	.....	72
August.	284	23	18	.....	.....	123
September.	207	19	41	.....	.....	180
October.	253	41	52	.....	.....	279
November.	205	40	53	.....	.....	279
December.	208	35	40	1	.....	285
1901						
January.	96	64	54	.....	1	357
February.	42	43	34	.....	.....	231
March.	249	70	18	8	.....	264
April.	201	20	20	4	.....	150
May.	245	39	16	15	.....	165
June.	220	32	9	7	.....	123
Total.	2,427	451	364	35	1	2,508
Last year.	1,395	263	480	32	.....	2,578

GARBAGE.

The garbage report shows a falling off in the amount collected compared with that of the year previous where there should have been a gain. This falling off can be accounted for by the Board of Health not being able last year to stop the sale of garbage by the hotels to outside parties and the throwing of garbage in our alleys. Both these causes will be greatly lessened the coming year under the provisions of the new garbage contract and ordinance.

In regard to the complaints for non-collection, experience does not change the comment made two years ago, that the larger part of

such complaints are due to a lack of providing proper garbage receptacles, keeping them in the proper place, and ignorance of what constitutes garbage. The education of the public along this line by placing a copy of the ordinance in their hands will stop a large majority of the complaints.

GARBAGE COLLECTION.

1900	Monthly collection in lbs.	Daily collection in lbs.	Complaints for non- collection
July.....	3,229,560	124,214	204
August.....	4,366,330	167,936	384
September.....	4,659,180	179,199	494
October.....	3,851,670	148,141	192
November.....	2,932,260	112,779	102
December.....	2,735,430	105,209	161
1901			
January.....	2,449,150	94,198	148
February.....	1,764,250	67,856	169
March.....	2,402,010	92,384	133
April.....	2,521,790	96,992	94
May.....	3,042,320	117,012	168
June.....	3,040,380	116,937	242
Total.....	36,994,330		2,491
Last year.....	38,450,000		2,800

QUARANTINE.

A comparison of this year's report with that of the year previous shows 10 more families were furnished with supplies, while the total number of persons were 20 less, costing \$770.16 more.

This increase of cost is due to the additional length of the time of detention while under quarantine, the period of diphtheria being from 3 to 10 days, and for scarlet fever 28 days.

Referring back to the police report, to which attention was called, it will be seen that the past year there were 451 places placarded for scarlet fever, against 263 the year previous, and 364 of diphtheria against 480.

The Board of Health solicit monthly tenders for the furnishing of these supplies, awarding the contract to the lowest responsible bidder.

The needs of each family asking for aid is carefully considered in this office, and supplies are issued accordingly, with a view to prevent the laying in for future store, to which there is always a tendency. Out of 851 families placed under quarantine, 448 asked for aid, which was given.

1900	Number of families quarantined	Number of families supplied	Number of persons supplied	Cost
July.....	24	11	56	\$108 27
August... ..	41	22	104	225 53
September	60	27	145	130 46
October.....	93	35	173	219 67
November.....	93	47	220	315 54
December.....	76	44	226	351 99
1901				
January.....	119	48	265	372 17
February.....	77	39	204	273 73
March.....	96	51	252	478 38
April.....	54	40	199	271 82
May.....	70	36	189	245 11
June.....	48	48	235	428 35
Total.....	851	448	2,268	\$3,420 92
Year previous.....	777	438	2,288	\$2,650 76
Increase.....				\$770 16
Supplies issued to City Hospital and Detention Cottage.....				\$ 269 58
To Steamer Paxton.....				64 07
To St. Francis Convent.....				525 76
To families.....				3,420 92
Total cost.....				\$4,280 36

CONCLUDING REMARKS.

In the report of the plumbing inspectors will be noticed figures under the head of special and smoke tests. These figures indicate the calls we receive for the inspection of old plumbing and drains, with a view to their improvement by reconstruction under our present sanitary regulations. This work, and the gradual removal of the old-time privy vault for general use, is steadily improving the sanitary condition of the city. For lack of proper surface drainage and the presence of these vaults, we find many a dwelling with stagnant water under them and in their cellars, fouled by their overflow and backage.

The proper care and removal of our garbage, effective sanitary drainage, clean streets and alleys, are very important items in the work of the Health Department in the proper maintenance and protection of the public health.

Steady improvement along these lines is going on. Much has been done, and there is still much more to do. Unsanitary conditions which have been permitted to stand for years, and to which people have become familiar, are not easily or quickly removed. We do the best we can with the means at our command and try to see that it is well done.

Respectfully,

A. B. RAYMOND,
Sanitary Engineer.

REPORT OF CHEMIST AND BACTERIOLOGIST.

Guy L. Kiefer, M. D., Health Officer:

DEAR SIR—I have the honor to present the following, which is a condensed report for the year ending June 30, 1901:

CHEMICAL ANALYSES.

Samples of milk for adulteration by watering or skimming.....	1,362
Samples of milk for preservatives or other foreign substances.....	1,047
Samples of oysters.....	2
Samples of cheese.....	2
Samples of city water supply.....	12
Samples of cream.....	7
Samples of butter.....	1
Samples of coffee.....	1
Samples of medicine.....	2
Samples of flour.....	1
Samples of meat for poison.....	1
Samples of powder from Police Department.....	1
Samples of sediment from water pipe.....	2
Experimental analyses.....	24

BACTERIOLOGICAL AND MICROSCOPICAL EXAMINATIONS.

Samples of milk.....	10
Samples of water.....	60
Samples examined for Klebs-Loeffler diphtheritic bacilli.....	364
Samples in which Klebs-Loeffler bacilli were found.....	107
Samples in which Klebs-Loeffler bacilli were not found.....	224
Samples indecisive (no growth on culture medium).....	33
Samples of sediment from water.....	2
Miscellaneous bacteriological examinations.....	10

MISCELLANEOUS.

Diphtheria culture sets prepared.....	410
Blood serum culture medium prepared..... cubic centimeters,	2,250
Nutrient gelatin culture medium prepared..... " "	600
Carbolic acid-gelatin culture medium prepared..... " "	180
Bouillon culture medium prepared..... " "	250
Times in court.....	1

MILK.

During the year a total of 1,047 samples of milk have been examined for preservatives, of which 32 contained formaldehyde, while boracic acid was found in 5. About 350 of these examinations, however, were made simply as a precautionary measure during the cool

weather, when there is little temptation, on the part of the dealer, to preserve his milk by chemical means, and, as was to be expected, these samples were all found to be pure. Twenty-eight out of the 37 samples containing preservatives were collected during July and August, 1900, while the other 9 were found during April, May and June of the present year. A quantitative analyses was made of 1,362 samples of milk to determine whether or not they were of the required chemical standard. Seventy-eight were below this standard, which is established by law, and is as follows:

Total solids not less than 12.50 per cent.

Butter-fat not less than 3.00 per cent.

Water not more than 87.50 per cent.

Specific gravity between 1.029 and 1.033.

The law allows skimmed milk to be sold as such, provided the cans or vessels containing it are properly marked.

At the request of several citizens, whose families were afflicted with typhoid fever, and who were customers of the same dealer, an investigation was made in order to determine whether or not the milk was the cause of the disease. Bacteriological examinations were made of several samples of the milk, and a thorough inspection was made of the premises, cows, cans, wagons, etc., by the Health Officer and Inspector, but absolutely no evidence was found pointing to the milk as the source of infection.

CITY WATER SUPPLY.

The monthly chemical and bacteriological examinations of our water supply have been continued during the year. All of the samples analyzed were in good condition, and show little variation from month to month, even less than in former years.

Owing to the general belief that there is a close connection between the water supply and the typhoid fever death rate of a city, it may be well to state here that, notwithstanding the fact that at two or three different times during the year unofficial reports of a typhoid fever epidemic were in circulation, yet in reality there were fewer deaths from that disease last year than at any time for several years past, and Detroit's typhoid fever death rate of recent years has been among the very lowest of all American cities. For the past year it was 1.54 per 10,000 population, and for the three preceding years—1898, 1899 and 1900—it was 1.60, 1.83 and 1.70, respectively.

The results of the monthly examinations of our water supply follow.

CHEMICAL ESTIMATIONS ARE IN PARTS PER 'MILLION.

	July 1900	August	September	October	November	December	January 1901	February	March	April	May	June
Appearance.....	N. C.	N. C.	N. C.	N. C.	N. C.	N. C.	C.	C.	C.	T.	S. T.	C.
Total Solids.....	109.6	109.2	111.0	109.6	114.6	119.6	107.0	107.6	107.8	125.4	116.0	104.6
Volatile Matter.....	39.8	40.0	39.4	42.0	39.0	34.0	32.0	36.8	38.4	42.0	36.8	35.6
Non-volatile Matter.....	69.8	69.2	71.6	67.6	75.6	85.6	75.0	70.8	69.4	83.4	79.2	69.0
Free Ammonia.....	.020	.012	.016	.014	.020	.012	.012	.012	.018	.024	.020	.008
Albuminoid Ammonia.....	.078	.076	.080	.114	.078	.072	.074	.084	.050	.110	.076	.068
Nitrogen as Nitrates.....	.099	.165	.115	.082	.150	.198	.130	.099	.160	.115	.165	.099
Nitrogen as Nitrites.....	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Chlorine.....	2.70	2.86	2.74	3.19	2.84	2.60	2.54	3.33	3.28	2.89	2.70	2.85
Oxygen absorbed in 15 minutes.....	.36	.48	.44	.60	.48	.40	.28	.40	.32	.52	.40	.36
Oxygen absorbed in 4 hours.....	.60	.80	.68	1.00	.72	.72	.60	.68	.64	.88	.76	.68
Bacteria (number) per cubic centimeter	226	190	203	98	22	61	18	600	650	550	96	47
" " " "	87	85	119	204	14	12	33	320	420	370	182	29
" " " "	148	115	48	312	105	29	103	590	210	416	204	110
" " " "	105	26	75	104	76	108	85	485	580	240	104	88
Growth in .2 per ct. carbolic-acid gelatin	No	No	No	No	No	No	No	No	No	No	No	No

S. T.—Slightly Turbid.

T.—Turbid.

C.—Clear.

N. C.—Nearly Clear.

DIPHTHERIA.

The number of bacteriological examinations made in suspected cases of diphtheria was less this year than last. Three hundred and sixty-four samples were submitted by physicians this year, while 449 were sent in the year previous. This decrease is due to the fact that diphtheria has been less prevalent the past year, only about two-thirds as many cases being reported as the year before. Of the 364 samples examined 29.4 per cent contained the Klebs-Loeffler bacilli; 61.5 per cent contained other bacteria, while in 33 cases (9.1 per cent) the first examination was unsatisfactory, due in most cases to a lack of care in taking the sample.

MISCELLANEOUS.

The examination of other articles which appear in the summarized statement at the beginning of this report were made in response to special complaints, many of which came from people who were quarantined.

Respectfully submitted,

W. I. TIBBALS,

Chemist and Bacteriologist.

REPORT OF MEAT INSPECTORS.

Guy L. Kiefer, M. D., Health Officer.

DEAR SIR—Following is our annual report as Meat Inspectors for the year ending June 30th, 1901 :

Inspected native cattle, M. C. R. R. Stock Yards.....	58,295
“ “ calves, “ “ “ “	11,854
“ “ sheep, “ “ “ “	113,215
“ “ hogs, “ “ “ “	222,117
“ milch cows in city.....	821
“ “ calves “	921
“ carcasses of beef “	26,565
“ “ veal “	21,386
“ “ mutton “	73,554
“ “ hogs “	16,262
“ dressed poultry “	707,963
“ coops of live chickens in city.....	10,655
“ “ “ turkeys “	372
“ “ “ ducks “	1,453
“ “ “ geese “	47
Condemned as unfit for human food—	
Carcasses of beef (6).....Lbs.	2,030
“ beef (minor lots).....	915
“ veal (23).....	1,137
“ hogs (3).....	750
Chickens	1,025
Turkeys	372
Hams and Bacon.....	895
Fish.....	550
Fish as unfit for fresh use.....	40,000
Nuts “ “ “	349
Berries “ “ “	Bushels, 3
Inspected retail meat, fish, slaughter houses, commission houses and vegetable markets	11,340

Respectfully submitted,

ALEX. KITTLE,

PETER E. HIRTH,

Meat Inspectors.

MEDICAL INSPECTOR.

Guy L. Kiefer, M. D., Health Officer :

SIR—I herewith have the honor of submitting my report as Medical Inspector and Disinfector for the fiscal year ending June 30th, 1901.

I have personally Disinfected various premises :

On account of Tuberculosis.....	92
“ “ Scarlet-fever.....	236
“ “ Diphtheria.....	196
“ “ Whooping Cough....	1
“ “ Yellow Fever.....	1
At request of various parties ..	11
have adjourned Disinfection of premises by reason of :	
Incomplete recovery from Diphtheria.....	40
“ “ “ Scarlet-fever.....	71
Special request or impossibility after death from, or removal of patient affected with Tuberculosis.....	13
Examined persons suspected of having Diphtheria.....	50
Took culture of tonsillar or pharyngeal exudate.....	45
Examined persons suspected of having Scarlet-fever.....	43
“ “ affected with miscellaneous diseases.....	16
Discovered cases reported as Diphtheria to be in reality Scarlet-fever cases..	15
Reported suspect cases at Health Department.....	14
Diagnosed and reported new cases of Diphtheria	17
“ “ “ “ Scarlet-fever....	48
Inspected and passed immigrants.....	345
Reported immigrants who left without inspection.....	104
Referred immigrants to Inspector for the West Side.....	5
Vaccination sances at Health Department and in other localities.....	91

Respectfully submitted,

G. V. BECELAERE, M. D., L. L. B.,
Medical Inspector and Disinfector.

MEDICAL INSPECTOR.

Guy L. Kiefer, M. D., Health Officer:

DEAR SIR—I herewith submit my report as Medical Inspector and Disinfector for the year ending June 30th, 1901.

Disinfections (diphtheria).....	195
“ (scarlet fever).....	308
“ (small pox) ..	60
“ (tuberculosis).....	79
“ (typhoid fever).....	1
Inspections, diagnosis, etc., (diphtheria).....	51
“ “ “ (scarlet fever).....	105
“ “ “ (small pox).....	160
“ “ “ for other than above diseases....	22
Attendance on small pox cases, visits.....	340
Immigrants inspected.....	196
Persons vaccinated..... about	3,000
Small pox patients removed to hospital.....	14
Persons removed to hospital for isolation.....	9
Confinements (small pox patient).....	1
Total number of small pox cases.....	110

Respectfully submitted,

E. J. KENDALL,

Medical Inspector and Disinfector.

REPORT OF MILK AND FOOD INSPECTOR.

DETROIT, MICH., July 1, 1901.

Guy L. Kiefer, M. D. Health Officer.

DEAR SIR :—

The following is a report of my work as Milk Inspector for the fiscal year, ending June 30, 1901, together with some remarks upon matters connected with Detroit's milk supply, which are made as the result of a year's work and observation, and which perhaps may be of some value to the producers and consumers of milk in and about Detroit.

Samples of milk taken and examined by chemist.....	1362
Containing formaldehyde.....	32
Containing boracic acid.....	5
Below standard of 3 per cent. butter fat.....	78
Visited and inspected dairies and milk depots at Ann Arbor, Sand Hill, Birmingham, Rochester and Mount Clemens	38

I examined all wagons and cans from which samples of milk were taken, and when found in an uncleanly condition, ordered them to be properly cleansed and so kept. Examination was made of all cow barns and stables within the city, and but few of them were found to be kept in a proper sanitary and cleanly condition. The owners were ordered to place their premises in proper condition, and in cases where cows were found to be unwell, were forbidden to sell the milk from them. In many cases cows were not allowed any exercise or fresh air, but were confined in their stables for an indefinite period, no bedding provided, and stables out of repair and uncomfortable. It seems to me that cow stables should not be maintained anywhere within the two-mile circle, and that an ordinance so providing should be enacted. Many cases were found where cows were fed chiefly

upon garbage collected ahead of the garbage collectors and kept in filthy receptacles. Wholesome milk cannot be expected from cows fed upon such food. In my opinion an especial effort should be made to compel owners to provide clean, comfortable and sanitary stables, wholesome food, pure water, and yards where exercise, fresh air and sunshine may be had.

All complaints made by citizens as to the quality or condition of milk, odors from barns and stables, etc., were promptly examined and the necessary notices given the offenders. Samples of milk were taken from wagons and stores, placed in clean bottles, tightly corked, the name of the owner taken, the bottles numbered and delivered to the Chemist for examination and report, the result being entered in detail in a general record book, which might be consulted by any person desiring to know the quality of milk collected from the dealer from whom he was taking milk. Many persons availed themselves of this privilege which seemed to give them much satisfaction. Care was taken to see that dealers properly labeled skimmed milk.

In my opinion it is very necessary to visit all milk depots and dairies and explain to their owners the necessity of immediately removing all animal heat from the milk, which can be done by stirring it thoroughly. If this is not done, in a can containing ten gallons, that in the center will not cool in less than eight hours. If the animal heat be removed as above described, the milk kept in clean vessels and a cool place, it will remain sweet for two days, but if not so treated it will soon turn sour and produce a bad odor. I found on visiting some of these depots and dairies much carelessness in this respect, and that the cans were not kept in a proper condition of cleanliness, making it necessary to condemn many hundreds of gallons of milk because it had not been properly cooled, and had been placed in dirty cans. More care should be used in the matter of food for milch cows. In some cases they are allowed to eat large quantities of sugar beet tops, thus giving to the milk a very disagreeable taste and odor. Sugar beet pulp is also fed to cows to a considerable extent, and produces, if used before fermentation, milk below the required standard, and if after fermentation, of inferior quality and bad odor. If dairymen would make use of the appliances for cooling milk, now to be had, much trouble and loss to dealers and consumers would be avoided, because

if not properly cured it is impossible to keep it fresh until it reaches the consumer.

Many retail dealers when selling milk were found to neglect to properly stir the contents of the can, the result being that the cream being at the top would be sold first, and the remainder, of a much poorer quality, would be sold at the same price, thus doing an injustice to those who got the last of the lot. This would be obviated if the contents of the can were well stirred when sales were being made. It was found that the majority of grocers did not provide proper receptacles for milk, and kept it adjacent to meats, vegetables, and other things, which give off disagreeable odors, and are taken up to a considerable extent by the milk, rendering it somewhat impure and unpalatable. Milk should be kept in clean, air-tight vessels, in a sanitary refrigerator, and not subjected to contamination of any kind.

During the first part of my term many samples of milk in which preservatives were used, were found. The offenders were notified to appear at the Milk Inspector's office and confronted with the record of the analysis of milk offered for sale by them, and in most instances satisfied the Health Officer and myself that they were led to believe that the preservatives used were entirely harmless, and when warned against the further use thereof, the results were generally satisfactory, this course substantially stopping this practice and serving perhaps the purpose desired as well as complaints to the courts would have done.

Respectfully submitted,

M. B. FAUGHNER,

Milk Inspector.

SECRETARY'S REPORT.

Detroit, Mich., July 1st, 1901.

The Honorable the Board of Health.

GENTLEMEN:—

The following is a statement of the appropriations allowed by the Board of Estimates for, and expenditures on account of, the various funds of the Board of Health for the fiscal year ending June 30, 1901.

	Fund	Expended	Balance	Deficit
Messenger service.....	\$ 100 00	\$ 146 75		\$ 46 75
Vaccine matter.....	125 00	325 58		200 58
Groceries.....	3000 00	3768 81		768 81
Postage.....	140 00	115 06	\$ 24 94	
Care of Poor patients.....	800 00	2270 77		1470 77
Antitoxin.....	500 00	198 99	301 01	
Laboratory supplies.....	50 00	56 79		6 79
Hospital supplies.....	400 00	125 48	274 52	
Hospital repairs.....	100 00	1072 12		972 12
Livery.....	100 00	113 75		13 75
Disinfectants.....	300 00	341 73		41 73
Advertising.....	30 00	3 76	26 24	
General expense.....	500 00	561 03		61 03
Labor, regular pay roll.....	20878 00	19638 66	1239 34	
Quarantine guards.....	500 00	4781 00		4281 00
Labor and Nurses at hospital.....	500 00	801 21		301 21
Transportation.....	200 00	382 00		182 00
Fuel.....	1000 00	986 45	13 55	
Printing and Stationery.....	500 00	299 43	200 57	
	\$ 29723 00	\$ 35989 37		

The above statement shows the condition in which the various funds would have been at the close of the fiscal year had not the Common Council, on an application made May 14, 1901, granted to the Board of Health the sum of \$6,554.56, with which to provide for prospective deficits, and again, on May 28th, the further sum of



\$1,500.00 with which to care for an outbreak of smallpox which was discovered on May 17th, in a large convent and orphanage.

As all the expenditures were absolutely necessary to properly care for the work of, and demands upon the Board of Health, the foregoing would seem to clearly show that a mistake was made by the Board of Estimates when they reduced by a large sum the amount estimated by the Board of Health to be necessary to provide for the public health affairs of the city for the last fiscal year.

The following shows the condition of the Board's finances at the close of the year, including the funds granted as above mentioned.

Original appropriation for fiscal year ending June 30, 1901.....	\$28,334.17
Granted by Common Council May 14.....	6,554.56
Granted by Common Council May 28, account of convent.....	1,500.00
Total appropriations ..	<u>\$36,388.73</u>
Total expenditures.....	<u>\$35,989.37</u>
Balance on hand July 1, 1901.....	\$399.36

Printing of this report has been delayed by the fact that some material parts thereof were not obtainable until recently because certain members of the former staff of the Board resigned their positions about July 1st, and being thereafter much engaged in their own business, found it difficult to spare the necessary time to prepare their reports.

Respectfully submitted,

JOHN F. MCKINLAY,

Secretary.